UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,866	04/10/2001	Timothy Jay Smith	9D-EC-19759	7398

7590 03/22/2005

John S. Beulick
Armstrong Teasdale LLP
One Metropolitan Square
Suite 2600
St.Louis, MO 63102

EXAMINER	
JARRETT, SCOTT L	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/829,866	SMITH ET AL.	
	Examiner	Art Unit	
	Scott L. Jarrett	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 September 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/31/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: System for displaying the capacity of a goods delivery system.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite and failing to point out and distinctly claim the subject matter which the applicant regards as the invention.

Regarding Claims 5 and 14 the disclosure does not clearly define the phrases "noting." The phrases "noting" could include a plurality of concepts including but not limited to: excluding, comparing, contrasting, meeting, or any of a plurality of other concepts thereby making the phrase as claimed vague and indefinite. The examiner interpreted the phrase "noting" to mean any of the plurality of meanings discussed above.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result.

Regarding Claims 1-9, Claims 1-9 only recite an abstract idea. The recited method for displaying the capacity utilization of a goods delivery system does not apply, involve, or use the technological arts since all of the recited steps

can be performed in the mind of the user or by use of a pencil and paper. The claimed invention, as a whole, is not within the technological art as explained above claims 1-9 are deemed to be directed to non-statutory subject matter.

Claims 10-18, claims 10-18 do not utilize the proper computer program product format and effectively recite descriptive material. Claims 10-18 are therefore deemed to be directed to non-statutory subject matter where there is no indication that the proposed computer readable medium serves any function other than data storage. Examiner suggests that the applicant incorporate into Claims 10-18 language that the proposed software is recorded on computer-readable medium and capable of execution by a computer to overcome this rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

7. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webvan (1999) aspects of which are discussed in the following references:

I. Borders et al., U.S. Patent Publication No. 2001/0047285, hereinafter referred to as reference A;

II. Murphy, Jean, Webvan: Rewriting The Rules On 'Last Mile' Delivery (2000) herein after referred to as reference B; and

III. O'Briant, Erin, Webvan Revs Up (2000) herein after referred to as reference C.

Regarding Claims 1, 10 and 19 Webvan teaches a method and system for scheduling the delivery of goods via the Internet (order fulfillment; see reference A: Abstract), the goods delivery system further comprising a plurality of subsystems (modules, components) including but not limited to: delivery route planning, capacity allocation/planning, billing, web store, transaction, transportation resource management, customer service management, warehouse management, order management, availability-to-promise and field service (reference A: Paragraphs 0034-0036, 0043, 0045-0048, 0060, 0076,

0084 0088- 0096, 0109, 0116, 0120, 0125, Figure 1, Element 118, 128 as shown below). Webvan further teaches that the goods delivery system utilized a plurality of commercially available systems including but not limited to systems provided by SAP, Desacrates and Optum (see reference A: Paragraphs 0050 and 0057;see reference B, Pages 3 and 5).

More specifically Webvan teaches that the goods delivery system enables users to self-schedule good delivery appointments wherein users identify the delivery time window that best fits their schedule, the identification process is facilitated by a display of the capacity (availability, utilization) of the goods delivery system (vans, trucks, agents, etc.) in a periodic calendar format. Webvan further teaches a goods delivery system having at least one delivery agent location, address and delivery zone (available delivery times, delivery windows, time windows, calendar, delivery window grid, appointments; reference A: Paragraphs 0007, 0045, 0077-0079, Figures 1-13; see reference B: Page 4, Paragraphs 2-5; Page 5, Paragraphs 5-7; Page 6, Paragraphs 5-9).

Webvan teaches that the goods delivery system further comprises:

- getting (receiving, inputting) delivery agent information (mobile field device; see reference A: Figure 1, Elements 106, 108, 112, 118 as shown below; see reference C: Page 28 and 32);

- calculating the delivery capacity for the delivery agent (capacity allocation, capacity planning, number of totes per order, number of totes per van, shoehorning, etc.; see reference A: Paragraphs 0060, 0076, 0084, 0088- 0096,

0109, 0116, 0120, 0125; Figures 6-8; see reference C: Pages 29-31 – Delivering on time);

- calculating the delivery capacity used for the delivery agent (actual order size (number of totes), estimated number of totes; see reference A: Paragraphs 0056-00656);

- calculating the usage information for the delivery agent (see reference A: Paragraphs 0060, 0076, 0084 0088- 0096, 0109, 0116, 0120, 0125; Figures 6-8; see reference C: Pages 29-31 – Delivering on time);

- displaying in a calendar format (periodic, time-based) the delivery agent information (schedule, capacity, available delivery times, delivery windows, time windows, calendar, delivery window grid, appointments; reference A: Paragraphs 0007, 0045, 0077-0079, Figures 5, 9 and 13); and

- determining a plurality of statistics (metrics, values, parameters, etc.; see reference B: Page 4, Paragraphs 2-5 – "mind boggling number of calculations are required to optimize each order for workflow efficiency and maximum tote capacity..").

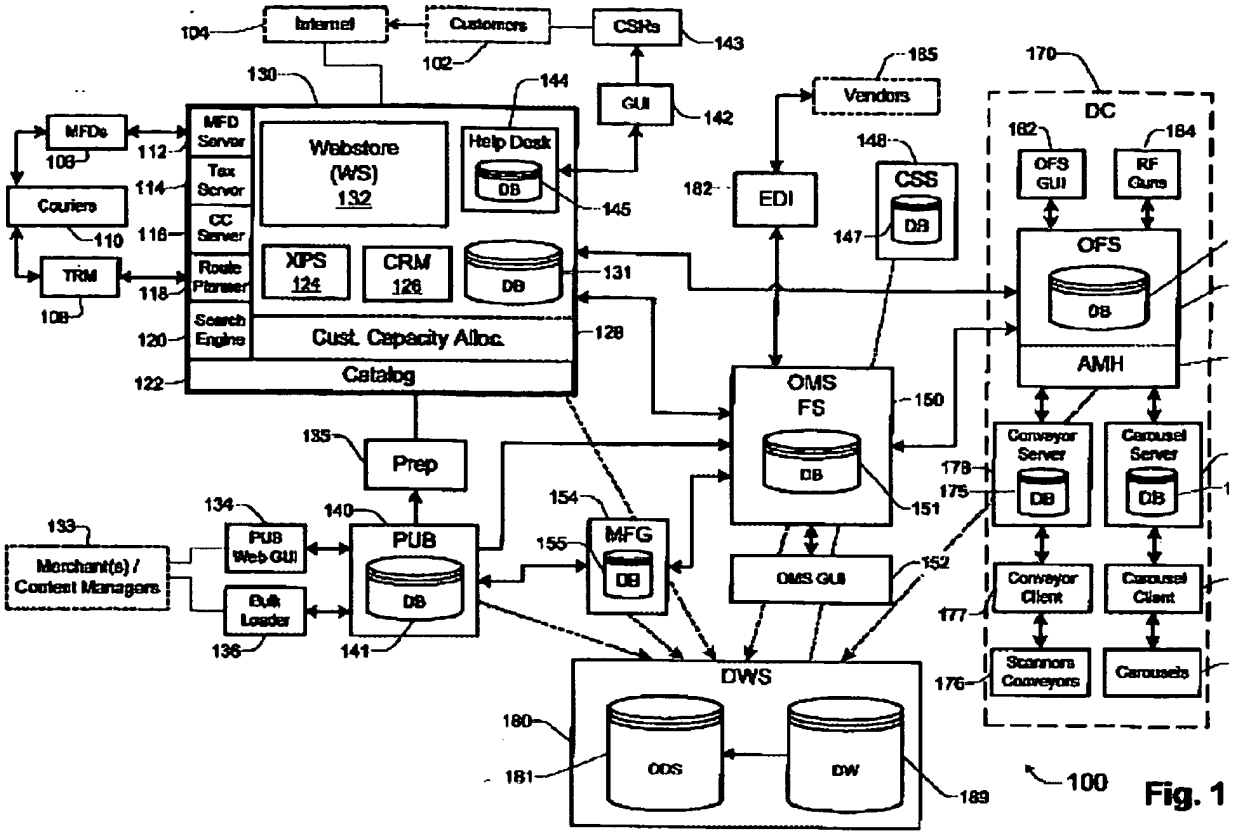


Fig. 1

Figure 1: Reference A, Figure 1

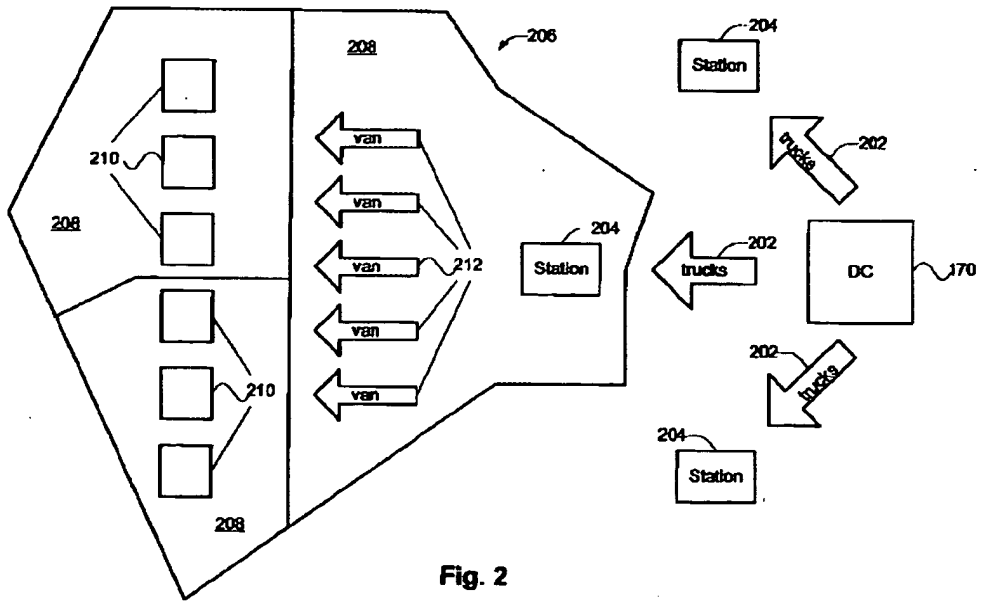
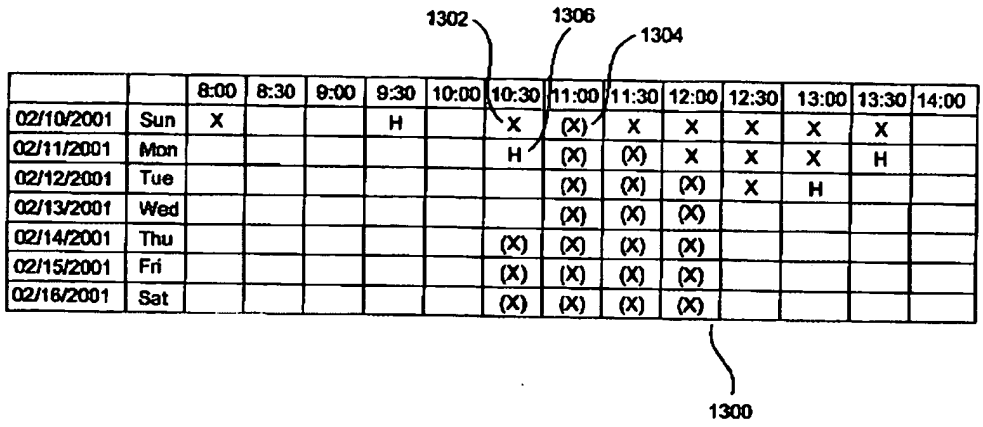


Fig. 2

Figure 2: Reference A, Figure 2



		8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00
02/10/2001	Sun	X			H		X	(X)	X	X	X	X	X	
02/11/2001	Mon						H	(X)	(X)	X	X	X	H	
02/12/2001	Tue							(X)	(X)	(X)	X	H		
02/13/2001	Wed							(X)	(X)	(X)				
02/14/2001	Thu						(X)	(X)	(X)	(X)				
02/15/2001	Fri						(X)	(X)	(X)	(X)				
02/16/2001	Sat						(X)	(X)	(X)	(X)				

FIG. 13

Figure 3: Reference A, Figure 13

Fig. 4

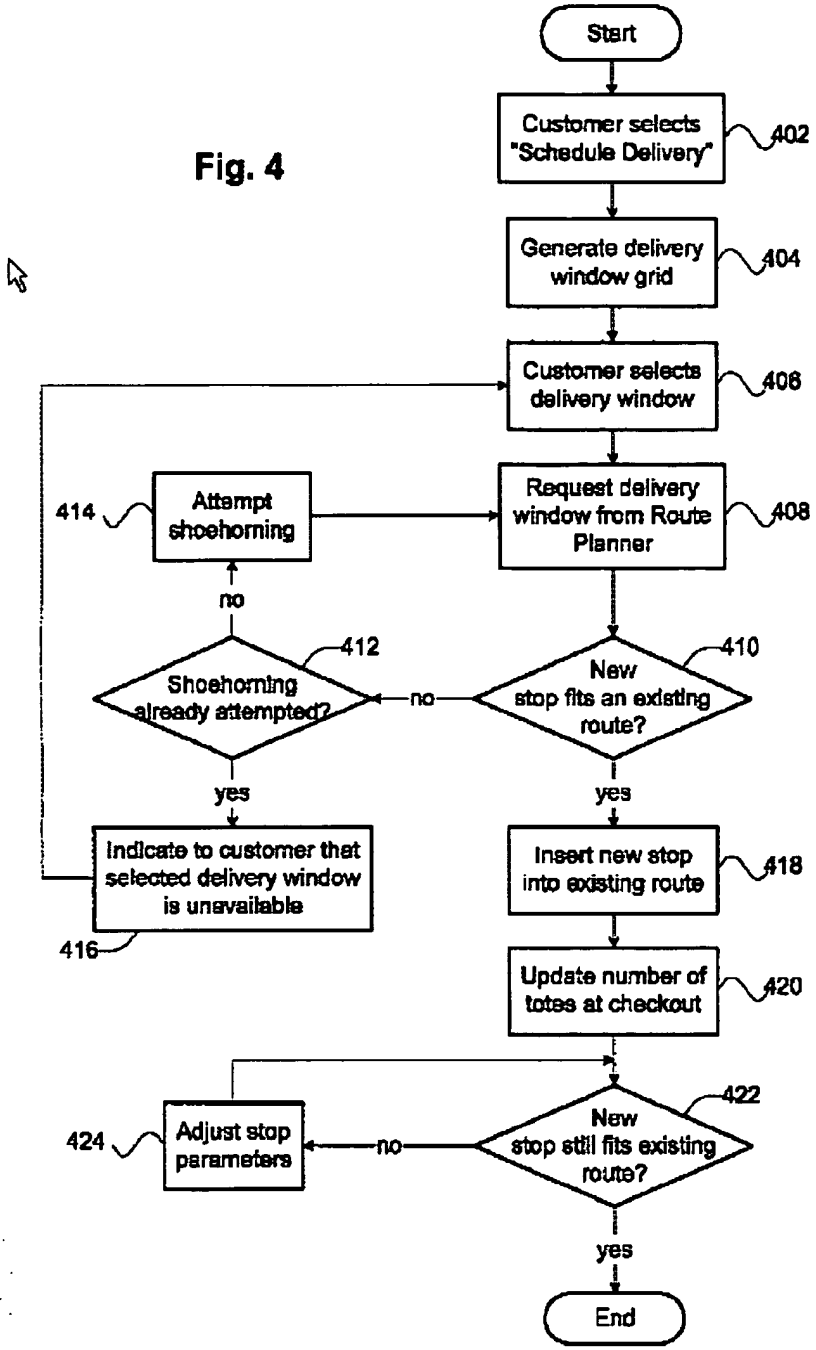


Figure 4: Reference A, Figure 4

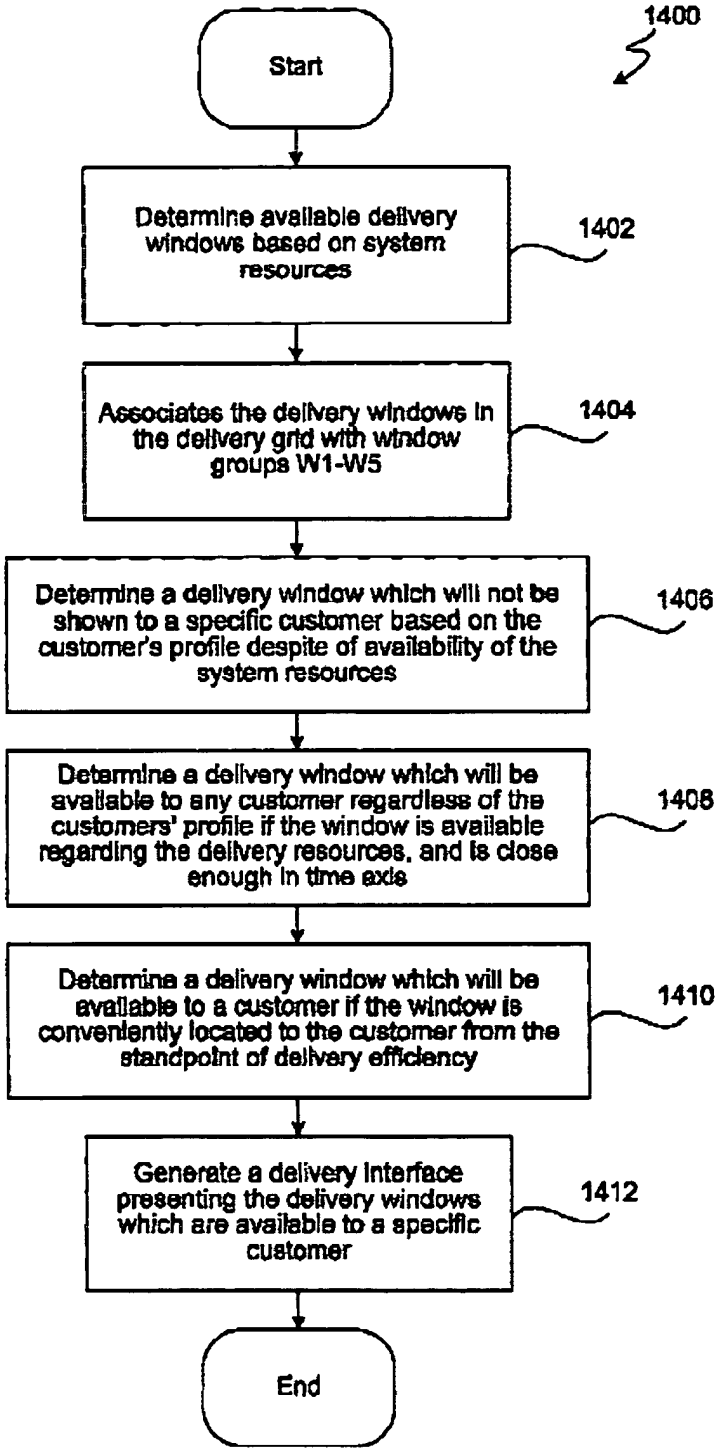


FIG. 14

Figure 5: Reference A, Figure 14

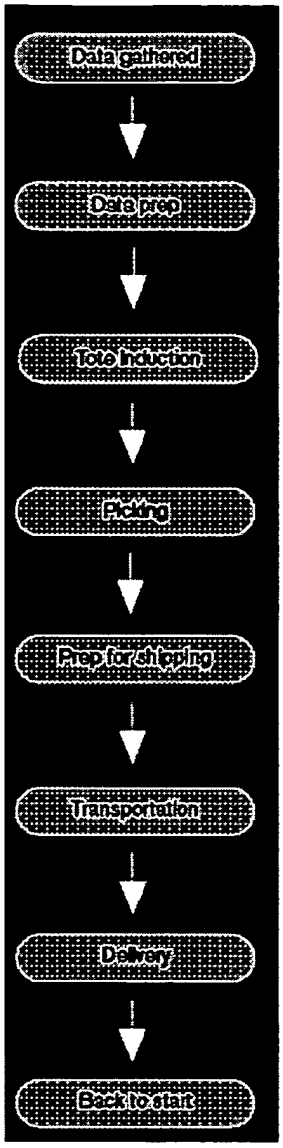


Figure 6: Reference C, Page 32

While Webvan teaches displaying delivery agent availability (available delivery windows) Webvan does not expressly teach the display of the delivery agent statistics or that the display enables the user to "drill-down" (link) to daily details.

As per applicants own admission the determination (calculation, utilization, etc.) of statistics in a goods delivery system is conventional and well established in the art (see at least Asthana et al., U.S. Patent No. 5,265,006; Information Disclosure received December 31, 2001; Column 5, Lines 1-6; Column 9, Lines 65-68; Column 10, Lines 1-10; Column 13, Lines 12-20; Column 14, Lines 4-11; Figures 1, 2, 2A, 4 and 8).

Asthana et al. further teach that the goods delivery system comprises (Column 9, Lines 35-68; Column 13, Lines 1-68;; Figures 1, 2, 2A, 4 and 8):

- the collection, calculation and utilization of a plurality of statistics (van statistics, area statistics, global statistics);

- providing capacity planning and management (load planning, van utilization, etc.; Column 23, Lines 60-68; Column 24, Lines 15-60; Column 25, Lines 10-60);

- enabling route planning and scheduling;

- utilizing a seven day planning horizon (Column 11, Lines 34-41); and

- enabling users to schedule overrides (Column 29, Lines 50-60).

It would have been obvious to one skilled in the art at the time of the invention that the goods delivery system as taught by Webvan, with its implicit collection and utilization of a plurality of information (data, metrics, statistics) as part of its route planning, route optimization capacity planning and warehouse management subsystems, would have benefited from displaying a plurality of statistics (metrics) regarding the goods delivery system including but not limited

to delivery agent statistics, as part of Webvan's ongoing focus on efficiency and automation (see reference C: Page 29, Delivering on time, Pages 30-31 and 32).

Official notice is taken that the ability to "drill-down" (link, view further details) in calendaring or other systems is conventional and well established as a means for enabling users to efficiently view (navigate) their schedule or other information in a plurality of formats or levels (e.g. month, year, day, week).

It would have been obvious to one skilled in the art at the time of the invention that the Internet-based goods delivery system and method as taught by Webvan, with its capability of displaying delivery capacity/availability in a periodic calendar format (week), would have benefited from enabling users to view (display) the available delivery times (capacity of the system) in a plurality of periodic calendar formats such as month, week or day thereby making it easier for users to quickly identify that delivery window that best fits their schedule.

Regarding Claims 2, 11 and 20 Webvan teaches a goods delivery system wherein a plurality of metrics (statistics) is utilized as discussed above. Webvan further teaches that the goods delivery system includes at least one of the following statistics delivery capacity, reserved capacity and deliveries (schedule, number of totes per order, number of totes per van, route optimization, reserve capacity, override groups; see reference A: Paragraphs 0078-0080, 0084, 0088,

0091; see reference B: Paragraphs 2-5, Page 4; see reference C: Delivering on time, Pages 30-31 and Page 32).

Regarding Claims 3 and 12 Webvan teaches a goods delivery system wherein a plurality of information (statistics, metrics and parameters) is calculated including the calculation of usage information comprising delivery schedules for delivery agents (route planning, delivery route, delivery schedule; see reference A: Paragraphs 0028, 0034, 0045-0048, 0060; Figures 1, 3, 4-5, see reference C: Pages 30-32).

Regarding Claims 4 and 13 Webvan teaches a goods delivery system wherein a plurality of information (statistics, metrics and parameters) is calculated as discussed above.

While Webvan teaches delivery agent utilization (e.g. determining such things as the delivery agents ability to accommodate new orders, shoehorning; see reference A: 0057-0058), Webvan does not expressly teach calculation the **percent** capacity utilization per day per delivery agent.

Official notice is taken that the calculation of the utilization (capacity, workload, availability) of a delivery agent (technician, service provider) as a **percentage** over a specified period of time (day, month, week, etc.) is old and

very well known in the art as a means for determining such things as the availability of that delivery agent to make more deliveries during that time period.

It would have been obvious to one skilled in the art at the time of the invention that the goods delivery system as taught by Webvan, with its implicit collection, determination and utilization of a plurality of information (data, metrics, statistics) as part of its route planning, route optimization capacity planning and warehouse management subsystems, would have benefited from calculating a plurality of percentages including but not limited to the percent capacity utilization per day for delivery agents; the resultant system thereby providing information regarding the overall workload of a particular agent over a specified period of time thereby enabling the system or user to determine if new orders can be added to the delivery agents schedule (shoehorning, overriding, etc.).

Regarding Claims 5 and 14 Webvan teaches a goods delivery system wherein a plurality of metrics (statistics) is utilized as discussed above. Webvan further teaches that a plurality of constraints (conditions, information, parameters) are collected, determined and utilized as part of the goods delivery systems overall optimization efforts (reference A: Paragraphs 0034-0036, 0043, 0045-0048, 0060, 0076, 0084 0088- 0096, 0109, 0116, 0120, 0125, Figures 1-12).

Regarding Claims 6 and 15 Webvan teaches a goods delivery system wherein a plurality of metrics (statistics) is utilized as discussed above. More

specifically Webvan teaches a goods delivery system wherein a plurality of delivery agent information is utilized and that the information includes at least one of the following: location, name, code, schedule name or group/zone name (reference A: Paragraphs 0034-0036, 0043, 0045-0048, 0050, 0056-0065).

Regarding Claims 7-8 and 1-176 Webvan teaches a goods delivery system wherein delivery agent availability (capacity, time windows, appointments, etc) is displayed in a periodic time format as discussed above.

Webvan does not expressly teach displaying the calendar format (time period) further comprises displaying the delivery agent statistics on a daily/monthly basis.

It would have been obvious to one skilled in the art at the time of the invention that the goods delivery system as taught by Webvan, with its implicit collection and utilization of a plurality of information (data, metrics, statistics) as part of its route planning, route optimization capacity planning and warehouse management subsystems, would have benefited from displaying a plurality of statistics (metrics) over a plurality of time periods (e.g. week, month, year) regarding the goods delivery system including but not limited to delivery agent statistics on a monthly and/or daily basis, as part of Webvan's ongoing focus on efficiency and automation (see reference C: Page 29, Delivering on time, Pages 30-31 and 32).

Regarding Claims 9 and 18 Webvan teaches a goods delivery system wherein the delivery agent statistics includes at least one of the following: default capacity, override capacity, capacity usage or percent capacity usage (average/standard order size, standard order delivery time, override, etc.; see reference A: Paragraphs 0056-0065, 0076 0084, 0086; Figure 9; see reference C: Pages 30-32).

Examiner Note

Examiner has cited particular sections, pages, and paragraphs or figures in the references applied to the claims for the convenience of the applicant. Although the specific citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kambe et al., U.S. Patent No 5,797,113, teach a method and system for generating an optimal transportation route in a products/goods delivery system, the system having at least one delivery agent, address and delivery zone.

- Edgar et al., U.S. Patent No. 5,848,395, teach a method and system for managing a service delivery, the system having a plurality of delivery agents (technicians, each from at least one location), a plurality of delivery addresses, a plurality of delivery zones (including but not limited to the utilization of zip/postal codes), a plurality of delivery routes (schedules). Edgar et al. further teach that the service delivery system provides a means for displaying in a periodic

calendar format the utilization (schedule, capacity, time slots, appointments) of the delivery system and delivery agent.

- Shanagawa et al., U.S. Patent No. 5,867,629, teach a system and method for optimizing a goods (products, services, etc.) delivery system wherein the system determines a plurality of optimal delivery schedules (routes) based in part on a plurality of capacity metrics (statistics) for a plurality of delivery zones (regions). Shanagawa et al. further teach that the goods delivery system provides route and timing diagram (periodic calendar) display units.

- Mowery et al., U.S. Patent No. 5,983,198, teach a goods delivery method and system wherein the system comprises a plurality of delivery agents, a plurality of delivery addresses (customers), a plurality of delivery schedules, a plurality of delivery zones, capacity planning as well as the calculation of a plurality of statistics.

- Detjen et al., U.S. Patent No. 5,970,466, teach a method and system for displaying the capacity utilization (schedule) of a business (plurality of individuals, agents, service providers, and the like) wherein the display is in periodic calendar format with drill up and down capabilities (day, month, year, etc.).

- Gaspard, II James G., U.S. Patent No. 6,240,362, teaches a method and system for managing a goods and passenger delivery system, the delivery system having at least one delivery agent location, delivery zone, delivery address and further displaying the schedule (route, progress) of one or more delivery agents in substantially real-time and in a periodic calendar format.

Gaspard further teaches that the delivery system provides capacity planning management to determine if additional passengers, freights or destinations can be added to a route and that such route planning algorithms are conventionally available.

- Nakagawa et al., U.S. Patent No. 6,374,178, teach a method and system for transportation management. More specifically Nakagawa et al. teach a delivery system comprising: operations planning, capacity management and planning (load management, loading rates, etc.), a plurality of delivery agents, delivery locations and provides a means for displaying, in periodic calendar format, transportation schedules (arrangement plans).

- Kraisser et al., U.S. Patent No. 6,701,299, teach an Internet based method and system for delivering goods comprising route planning and optimization and capacity planning (reserve capacity, delivery waves, vehicle and system level capacity/utilization). Kraisser et al. further teach that the goods delivery system provides a means for displaying capacity utilization (availability, time windows) of the delivery system for a specific delivery location (customer, order, etc.) in a periodic calendar format (delivery time and dates). Kraisser et al. further teach the commercial availability of route planning and optimization methods and systems, specifically mentioning Roadnet 5000 by Roadnet Technologies, Inc.

- Jacobs et al., U.S. Patent Publication No. 2001/0037229, teach a delivery system (services, installation, technicians, etc.) and method comprising route planning and optimization subsystem, a plurality of delivery agents, a

plurality of delivery zones and a means for displaying delivery system utilization (capacity, availability) in a periodic calendar format (time windows, bookings, reservations, calendar). Jacobs et al., further teach that route planning and optimization considers a plurality of constraints including but not limited to travel times, delivery skill requirements, agent breaks, working hours, geographic area, availability, shifts, priority, delivery agent utilization and the like.

- Indseth et al., U.S. Patent Publication No. 2002/0046073, teach a goods/services delivery system comprising a plurality of delivery agents, a plurality of delivery agent locations, a plurality of delivery addresses (customers, patients), a plurality of zones, route planning and optimization (visit plans, etc.) and a means for displaying, in periodic calendar format (10 weeks), schedules (capacity).

- Kao Corporation, Japanese Patent No. 40513507A, teaches a delivery scheduling system and method comprising delivery agents, delivery zones and delivery capacity planning.

- Descrates.com – Home, About Descrates, e-Fulfimment Solutions and Products & Solutions web pages, teaches a plurality of commercially available method and systems including but not limited to systems for goods delivery (route planning, scheduling and optimization, decision support tools, etc.).

- Armistead, Colin G. et al., The coping capacity management strategy in services and the influence on quality performance, teach the interaction between capacity management, quality management and resource management in

goods/delivery systems. Armistead et al. further teach a plurality of well-known capacity management strategies (techniques, methods).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (703) 306-5679. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJ
3/18/2005

TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600